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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,837	02/06/2002	Daniel B. Roitman	10011370-1	3741

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AGILENT TECHNOLOGIES, INC.
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EXAMINER	
EPPERSON, JON D	

ART UNIT	PAPER NUMBER
1639	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/072,837	ROITMAN ET AL.	
	Examiner	Art Unit	
	Jon D Epperson	1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20 and 26-29* is/are pending in the application.

4a) Of the above claim(s) *4,6,11,12,14,15,28 and 29* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,7-10,13,16-20,26 and 27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/19/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of the Application

1. The Response filed June 18, 2004 is acknowledged.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Status of the Claims

3. Claims 1-25 were pending. Applicants amended claims 1-4 and 13-20. In addition, Applicants canceled claims 21-25 and added claims 26-29. Therefore, claims 1-20 and 26-29 are currently pending.

4. Claims 4, 6, 11, 12, 14, 15, 28 and 29 are drawn to non-elected species and/or inventions and thus these claims are/remain withdrawn from further consideration by the examiner, 37 CFR 1.142(b), there being no allowable generic claim.

5. Therefore, claims 1-3, 5, 7-10, 13, 16-20 and 26-27 are examined on the merits in this action.

Withdrawn Objections/Rejections

6. All objections are withdrawn in view of applicant's amendments and/or arguments. All outstanding rejections under the second paragraph of 35 U.S.C. 112 are withdrawn in view of

Applicants' amendments and/or arguments. The Natan et al. rejection under 35 U.S.C. § 102(a) is withdrawn in part (see below) in view of Applicants' amendments and/or arguments. The Ravkin et al. rejection under 35 U.S.C. § 102(b) is withdrawn in part (see below) in view of Applicants' amendments and/or arguments. All other rejections are maintained and the arguments are addressed below.

Outstanding Objections and/or Rejections

Objections to the Claims

7. Claim(s) 1 is/are objected to because of the following informalities:

A. Claim 16 (currently amended) improperly uses the word "wherein" consecutively (i.e., "wherein wherein"). Correction is requested.

Claims Rejections - 35 U.S.C. 102

8. Claims 1-3, 5, 7-10, 13, 18-20 are rejected under 35 U.S.C. 102(a) as being anticipated by Natan et al. (WO 01/025002 A1) (Date of Publication **12 April 2001**).

For ***claim 1***, Natan et al. (see entire document) disclose methods for making colloidal rod particles as nanobar codes (see Natan et al., abstract; see also claims), which anticipates claim 1. For example, Natan et al. disclose **(a)** producing a multi-layered structure (e.g., see Natan et al., page 7, lines 1-5, "In preferred embodiments ... the nanobar code particles are made by electrochemical deposition ... though they may easily

be prepared by other means, both with or without a template"; see also figure 1A showing three different layers i.e., layers A, B and C; see also page 15, lines 5-11, "The present invention is directed to freestanding nanobar codes and their uses ... Nanobar codes that are not produced by some form of deposition or growth within a template ... may be considered free standing even though they have not been released from a template"; see also page 16, paragraph 2, "The particles of the present invention may be prepared by a variety of processes. The preferred process for the manufacture of a particular particle can often be a function of the nature of the segments comprising the particle ... Other methods o that may be applied to nanobar code (and template) synthesis include those that occur in solution (e.g., microfluidic synthesis), and/or involve photochemical techniques, MEMS, e-beam, micro-contact printing, and laser ablation methods"). Furthermore, Natan et al. disclose the use of transducing materials to make each layer of said structure (e.g., see Summary of Invention, page 3, last paragraph, "The present invention includes free-standing particles comprising a plurality of segments ... The segments of the particles of the present invention may be comprised of any material. Included among the possible materials are a metal, any metal chalcogenide, a metal oxide, a metal sulfide, ... [etc]"; see also Example 2, wherein CdSe [i.e., Applicant's elected species] is disclosed; see also Figures 1-6; see also page 17, lines 17-18; see especially paragraph bridging pages 17-18; see also page 22, paragraph 1; see also page 10, last paragraph). Furthermore, Natan et al. disclose **(b)** dividing the multi-layered structure into the plurality of microbar encoders wherein the plurality of microbar encoders have a characteristic detectable signal (e.g., see page 4, paragraph 2, wherein

Natan et al. disclose the production of a "plurality" of nanobar tags; see also page 4, paragraph 4, "The present invention includes an assembly of particles comprising a plurality of types of particles wherein each particle has one dimension of less than 10 um, and wherein the types of particles are differentiable. Preferably, the types of particles are differentiable based on the length, width, shape and/or composition of the particles"; see also page 5, paragraph 3; see especially page 12, paragraph 2, "In certain embodiments, the members of the assembly are identical while, in other embodiments, the assembly is comprised of a plurality of different types of particles"; see also page 12, paragraphs 3-4; see also page 49, last paragraph; see also page 28, last paragraph, see also claims 37, 55 and 82; see also page 28, last paragraph, "Following synthesis, whether on membrane or planar substrate, die separation techniques from the semiconductor industry can be utilized. The substrate will be mated to a flexible adhesive material. A dicing saw cuts through the substrate, leaving the adhesive intact. The adhesive is then uniformly stretched to provide physical separation between each island, each of which is then picked up automatically by robot and placed into a separate microwell [i.e., the multi-well structure is ***divided*** using a dicing saw]"). In addition, Natan et al. provide numerous other examples for "dividing" the multi-layered structure including "reversible" self-assembly of multi-layered structures, laser ablation, etc. (e.g., see Natan et al., middle paragraph). Natan et al. also disclose the use of a "silver plug" to "divide" or "separate out" the microbar encoders (e.g., see Natan et al., page 26, last paragraph).

For ***claim 2***, Natan et al. disclose method steps for detaching the microbar encoders from the substrate (e.g., see page 28, last paragraph, "a final critical step is

required to separate each unique type of nanorod and release all the nanorods into solution").

For ***claim 3***, Natan et al. disclose method steps for using a removable layer (e.g., see page 65, line 25; see also page 7, paragraph 1, disclosing "template dissolution"; see also 35 U.S.C. § 112, second paragraph rejection with regard to the use of a "template").

For ***claim 5***, Natan et al. disclose detectable signal by electromagnetic emission or absorption (e.g., Natan et al. disclose fluorescence; see figure 4; see also page 8, line 5; see also page 19, line 6; see also page 21, line 30).

For ***claim 7***, Natan et al. disclose quantum dots (e.g., see Example 2, wherein CdSe quantum dot is disclosed; see more generally page 3, line 2; see also page 17, line 18, see also page 36, line 1).

For ***claims 8-10***, Natan et al. disclose nucleic acid (e.g., see page 8, line 4; see also page 19, line 18; see also page 36, line 19; see also page 38, lines 19-24; see also page 40, line 11).

For ***claim 13***, Natan et al. disclose the use of a polymeric matrix (e.g., see page 4, line 1; see also page 7, line 12; see also page 8, line 3; see also page 10, lines 14-18; see also page 10, line 23; see also page 10, line 33; see especially page 11, lines 4-5, "Segments may be comprised of ... dye in polymeric material").

For ***claim 18-20***, Natan et al. further disclose the use of a linked probe (e.g., see page 13, paragraph 2, "Examples of functionalization include the attachment, often via a linker, to an antibody or antibody fragment, to an oligonucleotide [i.e., examples of probes]"; see also page 37, paragraph 2 disclosing examples like genotyping and SNP

mapping; see also page 44, line 22). In addition, Natan et al. further disclose the use of multiple pluralities of microbar encoders (e.g., see page 18, paragraph 2, disclosing the use of thousands of "batches" of microbars; see also page 20, paragraph 1, especially line 13; see also paragraph bridging pages 44-45).

Response

9. Applicant's arguments directed to the above 35 U.S.C. § 102 rejection were fully considered (and are incorporated in their entirety herein by reference) but were not deemed persuasive for the following reasons. Please note that the above rejection has been modified from it original version to more clearly address applicants' newly amended and/or added claims and/or arguments.

[1] Applicants argue, "Natan solely teaches methods in which freestanding microbars (termed "nanobars" in Natan's disclosure) are buil[t] from the bottom up, as opposed to methods in which a multi-layered substrate is divided to form microbars, as required by instant claims. While Natan may state that microbars can be prepared 'without a template' or that 'nanobar codes that are not produced by some form of deposition or growth with a template ...', Natan does not suggest how this can be done" (e.g., see 6/18/04 Response, bottom of page 9).

[2] Applicants argue, "Natan fails to teach element b) of claim 1, i.e., dividing a multi-layered structure into the plurality of microbar encoders. This element is simply not taught by Natan's disclosure" (e.g., see 6/18/04 Response, page 9, second to last paragraph).

[3] Applicants argue, "Since Natan's plurality of microbars are differentiable, i.e., different, they cannot have the same signal" (e.g., see 6/18/04 Response, paragraph bridging pages 9-10).

[4] Applicants argue, "with respect to photolithographic methods ... None of these sections [cited by the Examiner] described a photolithographic method for dividing a multilayered substrate into microbars" (e.g., see 6/18/04 Response, page 10, first full paragraph).

This is not found persuasive for the following reasons:

[1] The Examiner contends that Applicants' use of "comprising" terminology does not exclude "bottom up" methods for nanobar production. Thus, Applicants' arguments are not commensurate in scope with the claims. In addition, it does not matter whether or not Natan suggest how microbars can be produced "without a template" because Applicants removed this limitation from the claim (i.e., Applicants amendments renders this argument moot).

[2] The Examiner respectfully disagrees. Natan et al. teach many ways for "dividing" the multi-layered substrate which are explicitly outlined in the newly amended rejection (e.g., see also page 28, last paragraph, "Following synthesis, whether on membrane or planar substrate, die separation techniques from the semiconductor industry can be utilized. The substrate will be mated to a flexible adhesive material. A dicing saw cuts through the substrate, leaving the adhesive intact. The adhesive is then uniformly stretched to provide physical separation between each island, each of which is then picked up automatically by robot and placed into a separate microwell [i.e., the multi-well structure is ***divided*** using a dicing saw]").

[3] In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "the same

signal") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In addition, Natan et al. do teach the "same" signal as a "preferred" embodiment (e.g., see Natan et al., page 12, first full paragraph, "In certain embodiments, the members of the assembly are identical").

[4] The Examiner agrees with Applicants and the rejection with regard to claim 16 is withdrawn.

Accordingly, the 35 U.S.C. 102 rejection cited above is hereby maintained.

10. Claims 1-3, 5, 7-10, 13 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ravkin et al. (WO 00/63419 A1) (Date of Publication is **October 26, 2000**).

For ***claim 1***, Ravkin et al. (see entire document) disclose methods for making and using combinatorial chemical library supports having indicia at coding positions (see Ravkin et al., abstract; see also claims), which anticipates claim 1. For example, Ravkin et al. disclose **(a)** producing a multi-layered structure (e.g., see figure 3; see also page 16, paragraph 1 wherein the use of a "micro-punch" is disclosed; see also paragraph bridging pages 5-6; see also page 8, paragraph 3; see also page 15, last paragraph, see also claim 23; see also page 16, line 19 disclosing "rod-shaped" carriers; see also page 24, line 26). Furthermore, Ravkin et al. disclose the use of transducing materials to make the layers including nanocrystals including Applicants' elected CdSe nanocrystals (e.g., see page 13, last paragraph; see also page 14, first paragraph). Furthermore, Ravkin et al. disclose

(b) dividing the multi-layered structure into the plurality of microbar encoders wherein the plurality of microbar encoders have substantially identical characteristic detectable signals (e.g., see claim 9, "placing into each of a plurality of a separate reaction vessels, carriers having a selected one of a plurality of detectable code combinations"; see also page 5, lines 15-23; see also page 6, paragraph 2; see also page 8, paragraph 2; see page 8, lines 17-18; see also page 17, paragraph 2).

For ***claim 2***, Ravkin et al. disclose method steps for detaching the microbar encoders from the substrate (e.g., see figure 3 wherein microbar is detached with a micro-punch).

For ***claim 3***, Ravkin et al. disclose method steps for using a removable layer (e.g., see figure 2, element 204).

For ***claim 5***, Ravkin et al. disclose detectable signal by electromagnetic emission or absorption (e.g., see page 13, last paragraph; see also page 14, first paragraph; see also page 32, paragraph 2 disclosing light emission).

For ***claim 7***, Ravkin et al. disclose quantum dots (e.g., see Example 2, wherein CdSe quantum dot is disclosed; see more generally page 3, line 2; see also page 17, line 18, see also page 36, line 1).

For ***claims 8-10***, Ravkin et al. disclose nucleic acid including DNA (e.g., see figure 5; see also page 10, line 19; see also page 16, last paragraph; see also page 17, second paragraph; see also claim 6).

For ***claim 13***, Ravkin et al. disclose the use of a polymeric matrix (e.g., see page 34, paragraph 2; see also page 27, paragraphs 1-2).

For ***claim 18***, Ravkin et al. disclose the use of a linked probe including biotin-avidin and chemical linkages (e.g., see page 12, paragraph 2).

For ***claims 19-20***, Ravkin et al. disclose the use of multiple pluralities of microbar encoders (e.g., see claim 9; see also claim 21 wherein the use of sub-libraries are disclosed).

Response

11. Applicant's arguments directed to the above 35 U.S.C. § 102 rejection were fully considered (and are incorporated in their entirety herein by reference) but were not deemed persuasive for the following reasons. Please note that the above rejection has been modified from it original version to more clearly address applicants' newly amended and/or added claims and/or arguments.

[1] Applicants argue Ravkins' disclosure does not "support producing a plurality of microbar encoders having the *same* code" (e.g., see 6/18/04 Response, pages 10-11, especially page 11, first full paragraph).

[2] Applicants argue that Ravkin et al. do not disclose photolithographic techniques to "divide" the multi-layered structure (e.g., see 6/18/04 Response, page 11, paragraphs 2-3).

This is not found persuasive for the following reasons:

[1] In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the "same" code) are not recited in the rejected claim(s). Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

[2] The Examiner agrees with Applicants and the rejection with regard to claims 16-17 is hereby withdrawn.

Accordingly, the 35 U.S.C. 102 rejection cited above is hereby maintained.

New Rejections

Claims Rejections - 35 U.S.C. 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

12. Claims 1-3, 5, 7-10, 13, 16-20 and 26-29 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed had possession of the claimed invention. This is a new matter rejection.

A. In claim 1 (Currently amended), to the extent that the "deletion" of the phrase "unsupported by a template" extends beyond the previously claimed methods that were drawn "solely" to the use of "unsupported" templates (e.g., see Applicants' abstract, "In these methods, one or more layers are sequentially deposited ***unsupported by a template*** onto a substrate, each layer comprising a plurality of indicator materials"), the increased breadth of possible modification (e.g., a multi-layered structure produced using a

template) constitutes new matter. If applicant believes this rejection is in error, applicant must disclose where in the specification support for this amendment can be found in accordance with MPEP 714.02. Therefore, claim 1 and all claims from which 1 depends represent new matter i.e., claims 2-3, 5, 7-10, 13 and 16-20. In addition, to the extent that Applicants' newly added claims include "template" supported methods, this increased breadth also constitutes new matter.

B. In claim 1 (Currently amended), to the extent that the "deletion" of the phrase "substantially identical" extends beyond the previously claimed methods that were drawn "solely" to the use of microbar encoders possessing "substantially identical" characteristic detectable signals, the increased breadth of possible modification (e.g., a microbar encoders with non-identical characteristic detectable signals) constitutes new matter. If applicant believes this rejection is in error, applicant must disclose where in the specification support for this amendment can be found in accordance with MPEP 714.02. Therefore, claim 1 and all claims from which 1 depends represent new matter i.e., claims 2-3, 5, 7-10, 13 and 16-20. In addition, to the extent that Applicants' newly added claims include "non-identical" characteristic detectable signals, this increased breadth also constitutes new matter.

Claims Rejections - 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1-3, 5, 7-10, 13, 16-20 and 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Stonas et al. (US Patent Application Publication US 2002/0104762 A1) (Filed **October 2, 2001**).

For ***claim 1***, Stonas et al. (see entire document) disclose methods for making colloidal rod particles as nanobar codes (e.g., see Stonas et al., abstract; see also claims), which anticipates claim 1. For example Stonas et al. disclose **(a)** producing a multi-layered structure (e.g., see Stonas et al., page 10, paragraph 90 wherein a "pre-formed stack" is disclosed). In addition, Stonas et al. disclose materials that comprise "tranducing" materials (see Summary of Invention, paragraph 11, "The present invention includes free-standing particles comprising a plurality of segments ... The segments of the particles of the present invention may be comprised of any material. Included among the possible materials are a metal, any metal chalcogenide, a metal oxide, a metal sulfide, ... [etc]"; see also Example 2, wherein CdSe [i.e., Applicant's elected species] is disclosed; see also Figures 1-6). In addition, Stonas et al. disclose (b) dividing the multi-layered structure into the plurality of microbar encoders possessing a characteristic detectable signal (e.g., see Stonas et al., page 10, paragraph 90 wherein the mutli-layered pre-formed stack is "divided" using photolithographic techniques).

For ***claim 2***, Stonas et al. disclose method steps for detaching the microbar encoders from the substrate (e.g., see page 12, paragraph 107, "a final critical step is required to separate each unique type of nanorod and release all the nanorods into solution").

For ***claim 3***, Stonas et al. disclose method steps for using a removable layer (e.g., see page 3, paragraph 29 wherein "template dissolution" was disclosed; see also page 7, paragraph 63 wherein a "silver plug" is disclosed; see also page 9, paragraph 84 wherein the conductive layer is "dissolved").

For ***claim 5***, Stonas et al. disclose detectable signal by electromagnetic emission or absorption (e.g., Stonas et al., page 4, paragraph 33).

For ***claim 7***, Stonas et al. disclose quantum dots (e.g., see Example 2, wherein CdSe quantum dot is disclosed; see also page 1, paragraph 7).

For ***claims 8-10***, Stonas et al. disclose nucleic acid including DNA and RNA (e.g., see Stonas et al., page 1, paragraph 5; see also page 3, paragraph 27; see also page 2, paragraph 11 wherein the nanoparticles can be "functionalized" with oligonucleotides).

For ***claim 13***, Stonas et al. disclose the use of a polymeric matrix (e.g., see Stonas et al., page 4, paragraph 37).

For ***claims 16-17 and 26-27***, Stonas et al. disclose the use of photolithography [i.e., a "non-mechanical" method] to divide the multi-layered structure and also the use of a mask/etching (e.g., see Stonas et al., page 10, paragraph 90, "In another series of embodiments, photolithographic techniques are used to etch nanoparticles from a pre-formed stack of material, wherein each layer of the stack corresponds to a particular

segment of the subsequent nanoparticle ... layers of material ... are deposited onto a silicon wafer to form a stack. A layer of photoresist is then spun on the material stack. The stack is then exposed to radiation (e.g., UV light) by conventional mask-based photolithography (or by IL or by AIL) to pattern a grid on the resist. Following development of the resist, the entire film stack is then etched revealing many cylindrical film stacks. The nanoparticles can be liberated by one of the methods described above").

For ***claim 18-20***, Stonas et al. further disclose the use of a linked probe (e.g., see page 2, paragraph 11 wherein the nanoparticles can be "functionalized" with various probes; see also page 5, paragraph 42). In addition, Stonas et al. further disclose the use of multiple pluralities of microbar encoders (e.g., see page 5, paragraph 42, disclosing the use of thousands of "batches" of microbars; see also page 6, paragraphs 54-55).

14. Claims 1, 5, 8-9, 13 and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (US Patent 4,053,433) (Date of Patent is **October 11, 1977**).

For ***claims 1 and 18-20***, Lee (see entire document) discloses methods for color-coded microparticles (e.g., see Lee, abstract; see also claims), which anticipates claim 1. For example Lee disclose **(a)** producing a multi-layered structure wherein each layer of said structure comprises a transducing material (e.g., see figure 4; see also column 2, lines 15-33 wherein each layer is "colored"; see also column 4, last two paragraphs). In addition, Lee disclose **(b)** dividing the multi-layered structure into the plurality of microbar encoders, wherein the plurality of microbar encoders have a characteristic detectable signal (e.g., see column 5, lines 34-50 wherein a "skiving" technique is

disclosed; see also Example 4). Lee also discloses linking a probe molecule to the plurality of microbar encoders (e.g., see column 5, last paragraph). In addition, Lee discloses making a first and second plurality of microbar encoders (e.g., see column 2, lines 22-27, "providing an inventory of batches [i.e., more than one] of microparticles, each batch being uniquely coded ... incorporating microparticles from any one batch with only one unit of production of a substance"; see also lines 34-49).

For ***claim 5***, Lee discloses "blue, red, green, yellow and purple" (e.g., see Example 4), which fall within the electromagnetic emission or absorption spectra.

For ***claims 8-9***, Lee discloses "tagging" chemicals and "biological" grains (e.g., see column 5, last paragraph).

For ***claim 13***, Lee discloses dyes in polymeric matrices (e.g., see figure 1).

Conclusion

Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon D Epperson whose telephone number is (571) 272-0808. The examiner can normally be reached Monday-Friday from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jon D. Epperson, Ph.D.
September 19, 2004

BENNETT CELSA
PRIMARY EXAMINER